

FORCE-MEDIATED RASTERIZATION

## ABSTRACT OF THE DISCLOSURE

5 A rendering system models a glyph as a continuous mass, upon which forces act. Each  
pixel has the ability to exert a force on the glyph. If the pixel is entirely covered by a glyph, it is  
'stable', and exerts no force. If the pixel is partially covered by a glyph, it exerts a force on the  
glyph, in an attempt to move the glyph until the pixel is completely covered. The strength of the  
force is dependent upon the amount of coverage of the pixel, and the direction of the force is  
10 dependent upon the location of the coverage of the pixel. Because all of the partially covered  
pixels exert a force on the glyph to maximize their coverage by the glyph, the glyph will move in  
the direction corresponding to a vector sum of the individual forces, until an equilibrium point is  
reached. Assuming that the amount of partial coverage of a pixel corresponds to the degree of  
distortion that will be produced when the pixel is rendered, the balancing of the forces of all the  
15 pixels on the glyph results in a minimization of this distortion. Additionally, glyphs are modeled  
to effect a force on adjacent glyphs, based on a preferred spacing between the glyphs.